UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/762,127	02/02/2001	Michihiro Nagaishi	P5275B	1411

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EXAMINER
CHEN, CHONGSHAN

ART UNIT	PAPER NUMBER
2162	

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

<table>
<tr><td rowspan="2">Office Action Summary</td><td>Application No.
09/762,127</td><td>Applicant(s)
NAGAISHI ET AL.</td></tr>
<tr><td>Examiner
Chongshan Chen</td><td>Art Unit
2162</td></tr>
</table>

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>07 February 2005</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-14, 16-25, 27-29, 31-42, 44-49, 51-62 and 64-66</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-14, 16-25, 27-29, 31-42, 44-49, 51-62 and 64-66</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-14, 16-25, 27-29, 31-42, 44-49, 51-62 and 64-66 are pending in this Office

Action.

Continued Examination Under 37 CFR 1.114

2.   A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)

has been timely paid, the finality of the previous Office action has been withdrawn pursuant to

37 CFR 1.114. Applicant's submission filed on 7 February 2005 has been entered.

Claim Objections

3.   Please write claims 1-14 and 16-25 in a format similar to claim 27 in order to improve the

readability.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

5.   Claims 1-6, 16-19, 22-24 and 27-28 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Oren Zamir et al. ("Zamir", "Grouper: a dynamic clustering interface to Web

search results", Computer Networks, Vol. 31, No. 11-16, pp. 1361-1374, 17, May, 1999) in view

of Tso et al. ("Tso", 6,385,602).

As per claim 1, Zamir discloses an information categorizing method comprising a step of

acquiring, through a clustering module (Zamir, page 1363-1364, 3. Grouper, "Grouper is a

document clustering interface ..."), a plurality of search results searched by a search service

(Zamir, page 1363-1364, "HuskySearch (which is based on MetaCrawler [26]) retrieves results

from several popular Web Search engines ..."), a step of performing, through the clustering

module, a clustering process on the search results that categorizes the search results into a

clustering result that comprises a plurality of clusters (Zamir, page 1363-1364, "...Grouper

clusters the results as they arrive using the STC algorithm"), each cluster having an identifier and

all search results assigned to that cluster by the clustering process, the identifiers being presented

in a non-hierarchical arrangement (Zamir, page 1363-1366, Fig. 2), a step of generating a non-

hierarchical clustering result summary table representing a summary of the clustering result, the

non-hierarchical clustering result summary table containing no search results (Zamir, page 1363-

1366, Fig. 2 displays the clustering result summary table, the summary table is the two left

columns of Fig. 2, "Cluster" and "Size"), and a step of outputting the non-hierarchical summary

table together with the clustering result (Zamir, page 1363-1366, Fig. 2 displays the summary

table together with the clustering result, the summary table is two left columns of Fig. 2, the

clustering result is the right column of Fig. 2), wherein neither the clustering process performing

step nor the clustering result is based on any predefined categories and wherein the summary

table and the clustering result are distinct (Zamir, page 1365-1369).

Zamir does not explicitly disclose all of the search results are displayed, each search

result being displayed in one or more of the clusters. Tso teaches displaying all of the search

results, each search result being displayed in one or more of the clusters (Tso, col. 2, line 53 –

col. 3, line 13, col. 4, lines 44-48). Therefore, it would have been obvious to one of ordinary

skill in the art at the time the invention was made to modify the system of Zamir by displaying

all the search results as disclosed by Tso. The motivation being to enable the system to display

all the search results so that the user can quickly and easily read all the search results.

As per claim 2, Zamir and Tso teach all the claimed subject matters as discussed in claim

1, and further teach a step of converting, through a converter module, the search result searched

by the search service into a format that is processed by the clustering module (Tso, col. 11, lines

55-60).

As per claim 3, Zamir and Tso teach all the claimed subject matters as discussed in claim

2, and further teach the converter module is arranged correspondingly to each of a plurality of

search services when the clustering process is performed correspondingly to the plurality of

search services (Zamir, page 1366, Fig. 3).

As per claim 4, Zamir and Tso teach all the claimed subject matters as discussed in claim

3, and further teach a search process is performed using one search service selected from the

plurality of search services and the clustering process is performed on the search result searched

by the selected search service (Zamir, page 1366, Fig. 3).

As per claim 5, Zamir and Tso teach all the claimed subject matters as discussed in claim

3, and further teach search processes are performed in parallel using at least two search services

of the plurality of search services, respective search results are collected, and the clustering

process is performed on the collected search results (Zamir, page 1366-1377).

As per claim 6, Zamir and Tso teach all the claimed subject matters as discussed in claim

3, and further teach search processes are performed in parallel using at least two search services

of the plurality of search services, and the clustering process is individually performed on the

search results (Zamir, page 1366-1377).

As per claim 16, Zamir and Tso teach all the claimed subject matters as discussed in

claim 1, and further teaches the clustering result summary table includes a cluster name of each

cluster which is obtained through the clustering process (Zamir, page 1364-1365).

As per claim 17, Zamir and Tso teach all the claimed subject matters as discussed in

claim 16, and further teaches the clustering result is mutually linked with the clustering result

summary table, wherein when a cluster name portion of the clustering result summary table is

designated, the corresponding cluster portion of the clustering result is displayed, and wherein

when one cluster portion of a clustering result is designated, the clustering result summary table

is displayed (Zamir, page 1364-1365).

As per claim 18, Zamir and Tso teach all the claimed subject matters as discussed in

claim 17, and further teach the head portion of an outline surrounding the cluster or the last line

in the outline of the cluster present immediately prior to the first cluster is displayed on the top of

a screen (Zamir, page 1365).

As per claim 19, Zamir and Tso teach all the claimed subject matters as discussed in

claim 18, and further teach the clustering result summary table is displayed with the head portion

thereof appearing first on the screen (Zamir, page 1365).

As per claim 22, Zamir and Tso teach all the claimed subject matters as discussed in claim 16, and further teaches a plurality of documents to be clustered are the ones which have been searched using a keyword input by a user, the manner of displaying the cluster names containing the keyword input by the user is different in the clustering result summary table from the other cluster names (Zamir, page 1364-1365).

Claims 23-24 and 27-28 are rejected on grounds corresponding to the reasons given above for claims 1-2.

6.   Claims 7, 13, 31-35, 41, 44-45, 47-48, 51-55, 61 and 64-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oren Zamir et al. ("Zamir", "Grouper: a dynamic clustering interface to Web search results", Computer Networks, Vol. 31, No. 11-16, pp. 1361-1374, 17, May, 1999) in view of Tso et al. ("Tso", 6,385,602) and further in view of Mukherjea et al. ("Mukherjea", 6,415,282).

As per claim 7, Zamir and Tso teach all the claimed subject matters as discussed in claim 1, except for explicitly disclosing information to be clustered is at least one of the title of a document, a URL address, an update date, and a file size of an individual search result. Mukherjea teaches information to be clustered is at least one of the title of a document, a URL address, an update date, and a file size of an individual search result (Mukherjea, col. 3, lines 40-43). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Zamir and Tso's combined system by add the functionality of using URL address to cluster documents. Because the URL address reflects the subject area which the document is related to. Using this information can accurately categorize related documents into a cluster.

As per claim 13, Zamir, Tso and Mukherjea teach all the claimed subject matters as

discussed in claim 7, and further teach the clustering process is performed based on a feature,

and wherein the title of each document is detected and a word characteristic of and contained in

the title is extracted as the feature (Tso, col. 4, lines 51-55).

As per claim 31, Zamir discloses a method for categorizing digital information,

comprising the steps of:

acquiring at least one group of a plurality of digital items from at least one search of a

database or network (Zamir, page 1363-1364);

clustering the plurality of digital items in at least one group according to each of the

selected cluster-indexing information into a clustering result that comprises a plurality of

clusters, each cluster having an identifier and the selected cluster-indexing information of all the

search-acquired items assigned to that cluster, the identifiers being presented in a non-

hierarchical arrangement (Zamir, page 1363-1366);

generating a non-hierarchical clustering result summary table representing a summary of

the clustering result, the non-hierarchical clustering result summary table containing no search

results (Zamir, page 1364-1366, the summary table is the two left columns of Fig. 2, "Cluster"

and "Size"); and

outputting the clustering result together with the summary table (Zamir, page 1363-1366,

Fig. 2 displays the summary table together with the clustering result, the summary table is two

left columns of Fig. 2, the clustering result is the right column of Fig. 2),

wherein neither the clustering nor the cluster result is based on any predefined categories

and wherein the summary table and the clustering result are distinct (Zamir, page 1365-1369).

Zamir does not explicitly disclose the selected cluster-indexing information of all of the

search-acquired items are displayed, each selected cluster-indexing information being displayed

in one or more of the clusters. Tso teaches displaying the selected cluster-indexing information

of all of the search-acquired items, each selected cluster-indexing information being displayed in

one or more of the clusters (Tso, col. 2, line 53 – col. 3, line 13, col. 4, lines 44-48). Therefore, it

would have been obvious to one of ordinary skill in the art at the time the invention was made to

modify the system of Zamir by displaying all the search results as disclosed by Tso. The

motivation being to enable the system to display all the search results so that the user can quickly

and easily read all the search results.

Zamir teaches retrieving search results and clustering the search results based on

identifying phrases that are common to groups of documents. However, neither Zamir nor Tso

explicitly discloses extracting from each item in at least one group of a plurality of digital items

selected cluster-indexing information comprising at least one of title, URL address, update date,

and file size. Mukherjea teaches extracting from each item in at least one group of a plurality of

digital items selected cluster-indexing information comprising at least one of title, URL address,

update date, and file size (Mukherjea, col. 3, lines 40-43). Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to modify Zamir

and Tso's combined system by add the functionality of using URL address to cluster documents.

Because the URL address reflects the subject area which the document is related to. Using this

information can accurately categorize related documents into a cluster.

As per claim 32, Zamir, Tso and Mukherjea teach all the claimed subject matters as discussed in claim 31, and further teach converting each of the acquired digital items into a common format before performing the clustering (Tso, col. 11, lines 55-60).

As per claim 33, Zamir, Tso and Mukherjea teach all the claimed subject matters as discussed in claim 31, and further teach the at least one group of a plurality of digital items is acquired by selecting only one such group from a plurality of groups, each group being the result of an independent search, and wherein the clustering is performed on the selected one group (Zamir, Fig. 3, page 1366-1367).

As per claim 34, Zamir, Tso and Mukherjea teach all the claimed subject matters as discussed in claim 31, and further teach wherein the at least one group of a plurality of digital items acquired comprises a plurality of such groups, each group being the result of an independent search performed in parallel with one another, and wherein the clustering is performed on the collective search results (Zamir, Fig. 3, page 1366-1367).

As per claim 35, Zamir, Tso and Mukherjea teach all the claimed subject matters as discussed in claim 31, and further teach wherein the at least one group of a plurality of digital items acquired comprises a plurality of such groups, each group being the result of an independent search performed in parallel with one another, and wherein the clustering is individually performed on the search result (Zamir, Fig. 3, page 1366-1367).

As per claim 41, Zamir, Tso and Mukherjea teach all the claimed subject matters as discussed in claim 31, and further teaches the title of each digital item in at least one group of a plurality of digital items is extracted, each title being defined by selected characters in the corresponding digital item, the selected characters being identified by one of location, size and a

fixed number of words in from a designated beginning of the digital item, and wherein the identified selected characters are extracted and clustering is performed based on the selected characters extracted (Mukherjea, col. 3, line 34 - col. 5, lines 65).

As per claim 44, Zamir, Tso and Mukherjea teach all the claimed subject matters as discussed in claim 15, and further teach the clustering result summary table includes a cluster name of each cluster which is obtained through the clustering process (Zamir, page 1364-1365).

As per claim 45, Zamir, Tso and Mukherjea teach all the claimed subject matters as discussed in claim 16, and further teach the clustering result is mutually linked with the clustering result summary table, wherein when a cluster name portion of the clustering result summary table is designated, the corresponding cluster portion of the clustering result is displayed, and wherein when one cluster portion of a clustering result is designated, the clustering result summary table is displayed (Zamir, page 1364-1365).

Claims 47-48 and 51-55 are rejected on grounds corresponding to the reasons given above for claims 31-35.

Claim 61 is rejected on grounds corresponding to the reasons given above for claim 41.

Claims 64-65 are rejected on grounds corresponding to the reasons given above for claims 44-45.

7.   Claims 8-12, 14, 20-21, 25 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oren Zamir et al. ("Zamir", "Grouper: a dynamic clustering interface to Web search results", Computer Networks, Vol. 31, No. 11-16, pp. 1361-1374, 17, May, 1999) in view of Tso et al. ("Tso", 6,385,602) and further in view of Jacobson et al. ("Jacobson", 6,167,397).

As per claim 8, Zamir and Tso teach all the claimed subject matters as discussed in claim 1, except for explicitly disclosing the order of the clustering result is rearranged using a score indicating the degree of match between the clustering result and a search request for each document and the clustering result with the order thereof rearranged is then output. Jacobson teaches disclosing the order of the clustering result is rearranged using a score indicating the degree of match between the clustering result and a search request for each document and the clustering result with the order thereof rearranged is then output (Jacobson, col. 1, lines 58-63). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Zamir and Tso's combined system by incorporating the means of ranking document clusters as disclosed by Jacobson (Jacobson, col. 1, lines 58-63). The motivation being to provide the user a ranked list that tells the user which document is most relevant to the search query, and enables the user to find the most relevant document quickly.

As per claim 9, Zamir, Tso and Jacobson teach all the claimed subject matters as discussed in claim 8, except for explicitly disclosing calculating the average of scores of the documents contained in each cluster to treat the average of each cluster as a cluster score. It is important to note that Jacobson teaches weight and rank document clusters (Jacobson, col. 1, lines 58-63). Applicant should note that weight and rank document clusters involves calculating the weight values for the document clusters and using the weight values to rank the document clusters. The average weight scores of the documents contained in each cluster reflects how relevant is each cluster to the search query. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Zamir, Tso and Jacobson's combined system by calculating and using the average of scores of the documents

contained in each cluster to rank the document clusters. The motivation being to use an accurate

procedure to rank the clusters.

As per claim 10, Zamir, Tso and Jacobson teach all the claimed subject matters as

discussed in claim 8, except for explicitly disclosing determining the maximum value of the

scores of the documents in each cluster to treat the maximum score of each cluster as the cluster

score. It is important to note that Jacobson teaches weight and rank document clusters

(Jacobson, col. 1, lines 58-63). Applicant should note that weight and rank document clusters

involves calculating the weight values for the document clusters and using the weight values to

rank the document clusters. The maximum value of the scores of the documents in each cluster

reflects how relevant is the most relevant document in each cluster to the search query.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify the Zamir, Tso and Jacobson's combined system by calculating and using

the maximum value of the scores of the documents in each cluster to rank the document clusters.

The motivation being to use an accurate procedure to rank the clusters.

As per claim 11, Zamir, Tso and Jacobson teach all the claimed subject matters as

discussed in claim 8, except for explicitly disclosing determining a score at a midway point or a.

substantially midway point in each cluster when the documents contained in each cluster are

arranged in the order of magnitude of scores assigned thereto, to treat the score at the midway

point or the substantially midway point as the cluster score. It is important to note that Jacobson

teaches weight and rank document clusters (Jacobson, col. 1, lines 58-63). Applicant should note

that weight and rank document clusters involves calculating the weight values for the document

clusters and using the weight values to rank the document clusters. The score at a midway point

in each cluster reflect on average how relevant is each cluster to the search query. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Zamir, Tso and Jacobson's combined system by calculating and using the score at a midway point in each cluster to rank the document clusters. The motivation being to use an accurate procedure to rank the clusters.

As per claim 12, Zamir, Tso and Jacobson teach all the claimed subject matters as discussed in claim 9, and further teach the cluster score determining step for rearranging the cluster order is individually performed correspondingly to the plurality of search services when the clustering process is performed correspondingly to the search results provided by the plurality of search services (Jacobson, col. 1, line 58 - col. 2, line 22).

As per claim 14, Zamir, Tso and Jacobson teach all the claimed subject matters as discussed in claim 8, and further teach displaying the clusters in the order of the magnitude of scores from a high score to a low score and wherein when there are clusters having the same cluster score, one of the clusters having a larger number of documents there within is positioned higher in the cluster order (Jacobson, col. 1, line 58 - col. 2, line 22).

As per claim 20, Zamir and Tso teach all the claimed subject matters as discussed in claim 16, and further teach displaying the clustering result summary table agrees with the arrangement order of the clusters in the clustering result (Zamir, page 1364-1365).

As per claim 21, Zamir and Tso teach all the claimed subject matters as discussed in claim 16, and further teach displaying the clustering result summary table, the manner of displaying the cluster names is changed in the clustering result summary table depending on the

importance of each cluster in response to the clustering result (Zamir, page 1364-1366, Jacobson, col. 1, line 58 - col. 2, line 22, ranked list of document clusters).

Claims 25 and 29 are rejected on grounds corresponding to the reasons given above for claim 8.

8.   Claims 36-40, 42, 46, 49, 56-60, 62 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oren Zamir et al. ("Zamir", "Grouper: a dynamic clustering interface to Web search results", Computer Networks, Vol. 31, No. 11-16, pp. 1361-1374, 17, May, 1999) in view of Tso et al. ("Tso", 6,385,602) in view of Mukherjea et al. ("Mukherjea", 6,415,282) and further in view of Jacobson et al. ("Jacobson", 6,167,397).

As per claim 36, Zamir, Tso and Mukherjea teach all the claimed subject matters as discussed in claim 31, except for explicitly disclosing the order of the clustering result is rearranged using a score indicating the degree of match between the clustering result and a search request for each document and the clustering result with the order thereof rearranged is then output. Jacobson teaches disclosing the order of the clustering result is rearranged using a score indicating the degree of match between the clustering result and a search request for each document and the clustering result with the order thereof rearranged is then output (Jacobson, col. 1, lines 58-63). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Zamir, Tso and Mukherjea's combined system by ranking the document clusters as disclosed by Jacobson. The motivation being to provide the user a ranked list that tells the user which document is most relevant to the search query, and enables the user to find the most relevant document quickly.

Claims 37-39 are rejected on grounds corresponding to the reasons given above for claims 9-11.

As per claim 40, Zamir, Tso, Mukherjea and Jacobson teach all the claimed subject matters as discussed in claim 36, and further teach the cluster score determining step for rearranging the cluster order is individually performed correspondingly to the plurality of search services when the clustering process is performed correspondingly to the search results provided by the plurality of search services (Jacobson, col. 1, line 58 - col. 2, line 22).

As per claim 42, Zamir, Tso, Mukherjea and Jacobson teach all the claimed subject matters as discussed in claim 36, and further teach displaying the clusters in the order of the magnitude of scores from a high score to a low score and wherein when there are clusters having the same cluster score, one of the clusters having a larger number of documents there within is positioned higher in the cluster order (Jacobson, col. 1, line 58 - col. 2, line 22).

Claim 46 is rejected on grounds corresponding to the reasons given above for claim 21.

Claim 49 is rejected on grounds corresponding to the reasons given above for claim 36.

Claims 56-60 are rejected on grounds corresponding to the reasons given above for claims 36-40.

Claim 62 is rejected on grounds corresponding to the reasons given above for claim 42.

Claim 66 is rejected on grounds corresponding to the reasons given above for claim 21.

Response to Arguments

9.   Applicant's arguments filed on 7 February 2005 have been fully considered but they are

not persuasive.

10.   As per applicant's arguments regarding Fig. 2 of Zamir meets neither applicant's claimed

clustering result, which comprises all of the search results of each of the plurality of clusters, nor

the claimed non-hierarchical clustering result summary table, which contains no search results

have been considered but are not persuasive. Zamir teaches the claimed non-hierarchical

clustering result summary table. In Fig. 2 of Zamir, the combination of the two left columns

"Cluster" and "Size" are the claimed summary table. The right column is the search results of

each of the plurality of clusters. The Zamir reference does not discloses displaying all of the

search results, however, Tso teaches displaying all of the search results (Tso, col. 2, line 53 – col.

3, line 13, col. 4, lines 44-48). Therefore, it would have been obvious to one of ordinary skill in

the art at the time the invention was made to modify the system of Zamir by displaying all the

search results as disclosed by Tso. The motivation being to enable the system to display all the

search results so that the user can quickly and easily read all the search results.

11.   As per applicant's arguments regarding the references do not teach displaying the

clustering result together with the non-hierarchical clustering result summary table have been

considered but are not persuasive. Zamir teaches displaying the clustering result together with

the non-hierarchical clustering result summary table (Zamir, page 1364-1369, Fig. 2, the

combination of two left columns of Fig. 2 is the summary table, the right column is the clustering

result, they are displayed together). Therefore, the arguments are not persuasive.

Contact Information

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Chongshan Chen whose telephone number is (571) 272-4031.

The examiner can normally be reached on Monday - Friday (8:00 am - 4:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chongshan Chen
May 27, 2005

JEAN M. CORRIELUS
PRIMARY EXAMINER